

(FILE 'HOME' ENTERED AT 15:49:17 ON 10 MAR 2004)

FILE 'MEDLINE, BIOSIS, USPATFULL' ENTERED AT 15:49:28 ON 10 MAR 2004

L1 1664 S ACTIVIN RECEPTOR?  
L2 31 S (KONDO, S.? OR KONDO S.?)/AU  
L3 0 S L1 AND L2  
L4 8568 S ACTIVIN  
L5 0 S L2 AND L4  
L6 40623 S (MURAMATSU OR KONDO OR ETOH OR SHIBAI OR MURATA OR HASHIMOTO)  
L7 35 S L1 AND L6  
L8 34 DUP REM L7 (1 DUPLICATE REMOVED)

AB The present invention relates to kinase assays, and specifically to novel kinase assay methods using a novel target peptide for measuring the activity and/or modulation of activity of the ActRIIB kinase protein.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 6 OF 34 USPATFULL on STN

ACCESSION NUMBER: 2003:237863 USPATFULL  
TITLE: Receptor polypeptides and their production and uses  
INVENTOR(S): Cox, Edward T., Foster City, CA, UNITED STATES  
Mather, Jennie P., Millbrae, CA, UNITED STATES  
Sliwkowski, Mary B., San Carlos, CA, UNITED STATES  
Woodruff, Teresa K., Millbrae, CA, UNITED STATES  
PATENT ASSIGNEE(S): Genentech, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003166020	A1	20030904
APPLICATION INFO.:	US 2002-192022	A1	20020710 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1993-125065, filed on 21 Sep 1993, GRANTED, Pat. No. US 6455262 Continuation of Ser. No. US 1993-12711, filed on 3 Feb 1993, GRANTED, Pat. No. US 5286654 Division of Ser. No. US 1991-716826, filed on 19 Jun 1991, GRANTED, Pat. No. US 5216126		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	GENENTECH, INC., 1 DNA WAY, SOUTH SAN FRANCISCO, CA, 94080		
NUMBER OF CLAIMS:	18		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	4 Drawing Page(s)		
LINE COUNT:	2967		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An isolated TGF-.beta. supergene family (TSF) receptor polypeptide is provided. This polypeptide preferably is an inhibin/activin **receptor** polypeptide and has at least 75% sequence identity with the mature human inhibin/activin **receptor** sequence. Also provided is a method for purifying TGF-.beta. supergene family members such as inhibin or activin using the polypeptide, and a method for screening for compounds with TGF-.beta. supergene family member activity by contacting the compound with the polypeptide and detecting if binding has occurred and the compound is active.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 7 OF 34 USPATFULL on STN

ACCESSION NUMBER: 2003:232514 USPATFULL  
TITLE: Follistatin-3  
INVENTOR(S): Duan, D. Roxanne, Bethesda, MD, UNITED STATES  
Ruben, Steven M., Brookeville, MD, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003162715	A1	20030828
APPLICATION INFO.:	US 2003-372874	A1	20030226 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 2000-617804, filed on 14 Jul 2000, GRANTED, Pat. No. US 6537966 Division of Ser. No. US 1998-141027, filed on 27 Aug 1998, GRANTED, Pat. No. US 6372454		

NUMBER	DATE
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LEGAL REPRESENTATIVE: HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE,  
ROCKVILLE, MD, 20850  
NUMBER OF CLAIMS: 28  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 5 Drawing Page(s)  
LINE COUNT: 4327

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to a novel follistatin-3 protein which is a member of the family of inhibin-related proteins. In particular, isolated nucleic acid molecules are provided encoding the human follistatin-3 protein. Follistatin-3 polypeptides are also provided as are vectors, host cells and recombinant methods for producing the same. The invention further relates to screening methods for identifying agonists and antagonists of follistatin-3 activity. Also provided are diagnostic methods for detecting reproductive system-related disorders and disorders of the regulation of cell growth and differentiation and therapeutic methods for treating reproductive system-related disorders and disorders of the regulation of cell growth and differentiation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 13 OF 34 USPATFULL on STN

ACCESSION NUMBER: 2002:227984 USPATFULL  
TITLE: Antibodies which bind specifically to **activin receptor** like kinases  
INVENTOR(S): Miyazono, Kohei, Uppsala, SWEDEN  
ten Dijke, Peter, Uppsala, SWEDEN  
Franzen, Petra, Uppsala, SWEDEN  
Yamashita, Hidetoshi, Uppsala, SWEDEN  
Heldin, Carl-Henrik, Uppsala, SWEDEN

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002123139	A1	20020905
APPLICATION INFO.:	US 2001-903068	A1	20010711 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 2000-679187, filed on 3 Oct 2000, PATENTED Division of Ser. No. US 1995-436265, filed on 30 Oct 1995, PATENTED A 371 of International Ser. No. WO 1993-GB2367, filed on 17 Nov 1993, UNKNOWN		

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1992-24057	19921117
	GB 1993-4677	19930308
	GB 1993-4680	19930308
	GB 1993-11047	19930528
	GB 1993-13763	19930702
	GB 1993-9136099	19930803
	GB 1993-21344	19931015

DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: FULBRIGHT & JAWORSKI, LLP, 666 FIFTH AVE, NEW YORK, NY, 10103-3198  
NUMBER OF CLAIMS: 31  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 11 Drawing Page(s)  
LINE COUNT: 2833

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A new receptor family has been identified, of activin-like kinases. Novel Proteins have activin/TGF-.beta.-type I receptor functionality, and have consequential diagnostic/therapeutic utility. They may have a serine/threonine kinase domain, a DFKSRN or DLKSKN sequence in subdomain VIB and/or a GTKRYM sequence in subdomain VIII.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 14 OF 34 USPATFULL on STN

ACCESSION NUMBER: 2002:84902 USPATFULL  
TITLE: Nucleic acids, proteins and antibodies  
INVENTOR(S): Rosen, Craig A., Laytonsville, MD, UNITED STATES  
Ruben, Steven M., Olney, MD, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002044941	A1	20020418
	US 2003064072	A9	20030403
APPLICATION INFO.:	US 2001-925302	A1	20010810 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. WO 2000-US5918, filed on 8 Mar 2000, UNKNOWN		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-124270P	19990312 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850	
NUMBER OF CLAIMS:	23	
EXEMPLARY CLAIM:	1	
LINE COUNT:	21121	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to novel lung cancer related polynucleotides, the polypeptides encoded by these polynucleotides herein collectively referred to as "lung cancer antigens," and antibodies that immunospecifically bind these polypeptides, and the use of such lung cancer polynucleotides, antigens, and antibodies for detecting, treating, preventing and/or prognosing disorders of the lung, including, but not limited to, the presence of lung cancer and lung cancer metastases. More specifically, isolated lung cancer nucleic acid molecules are provided encoding novel lung cancer polypeptides. Novel lung cancer polypeptides and antibodies that bind to these polypeptides are provided. Also provided are vectors, host cells, and recombinant and synthetic methods for producing human lung cancer polynucleotides, polypeptides, and/or antibodies. The invention further relates to diagnostic and therapeutic methods useful for diagnosing, treating, preventing and/or prognosing disorders related to the lung, including lung cancer, and therapeutic methods for treating such disorders. The invention further relates to screening methods for identifying agonists and antagonists of polynucleotides and polypeptides of the invention. The invention further relates to methods and/or compositions for inhibiting or promoting the production and/or function of the polypeptides of the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 15 OF 34 USPATFULL on STN

ACCESSION NUMBER: 2002:48570 USPATFULL  
TITLE: Medicament and method for treating renal disease  
INVENTOR(S): Kojima, Itaru, Maebashi, JAPAN  
PATENT ASSIGNEE(S): AJINOMOTO CO., INC., Tokyo, JAPAN (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002028762	A1	20020307
	US 6599876	B2	20030729
APPLICATION INFO.:	US 2001-820857	A1	20010330 (9)

	NUMBER	DATE
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PRIORITY INFORMATION:	JP 2000-97553	20000331
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	OBLON SPIVAK MCCLELLAND MAIER & NEUSTADT PC, FOURTH FLOOR, 1755 JEFFERSON DAVIS HIGHWAY, ARLINGTON, VA, 22202	
NUMBER OF CLAIMS:	6	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	6 Drawing Page(s)	
LINE COUNT:	451	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

AB A medicament for treating a renal disease, comprising a therapeutically effective amount of an activin inhibitor as an active ingredient. Also, a method for treating a renal disease, comprising administering a therapeutically effective amount of an activin inhibitor to a patient suffering from renal disease is disclosed. The activin inhibitor may be follistatin, an anti-activin antibody, an inhibitor to **activin receptor** or an anti-**activin receptor** antibody, an inhibitor to signal transduction relating to **activin receptor**, an activin production inhibitor in kidney, and the like.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 16 OF 34 USPATFULL on STN

ACCESSION NUMBER: 2002:246543 USPATFULL

TITLE: Receptor polypeptides and their production and uses

INVENTOR(S): Cox, Edward T., Foster City, CA, United States  
Mather, Jennie P., Millbrae, CA, United States  
Sliwkowski, Mary B., San Carlos, CA, United States  
Woodruff, Teresa K., Millbrae, CA, United States

PATENT ASSIGNEE(S): Genentech, Inc., South San Francisco, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
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PATENT INFORMATION:	US 6455262	B1	20020924
APPLICATION INFO.:	US 1993-125065		19930921 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1993-12711, filed on 3 Feb 1993, now patented, Pat. No. US 5286654 Division of Ser. No. US 1991-716826, filed on 19 Jun 1991, now patented, Pat. No. US 5216126		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Kemmerer, Elizabeth		
ASSISTANT EXAMINER:	DeBerry, Regina M.		
LEGAL REPRESENTATIVE:	Hasak, Janet E.		
NUMBER OF CLAIMS:	1		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	7 Drawing Figure(s); 4 Drawing Page(s)		
LINE COUNT:	3010		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

AB An isolated TGF- $\beta$ . supergene family (TSF) receptor polypeptide is provided. This polypeptide preferably is an inhibin/**activin receptor** polypeptide and has at least 75% sequence identity with the mature human inhibin/**activin receptor** sequence. Also provided is a method for purifying TGF- $\beta$ . supergene family members such as inhibin or activin using the polypeptide, and a method for screening for compounds with TGF- $\beta$ . supergene family member activity by contacting the compound with the polypeptide and detecting if binding has occurred and the compound is active.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 17 OF 34 USPATFULL on STN

ACCESSION NUMBER: 2001:199932 USPATFULL

TITLE: Cloning and recombinant production of receptor(s) of the activin/TGF-beta superfamily

INVENTOR(S): Mathews, Lawrence S., Ann Arbor, MI, United States  
Vale, Wylie W., JR., La Jolla, CA, United States  
Tsuchida, Kunihiro, San Diego, CA, United States

PATENT ASSIGNEE(S): The Salk Institute for Biological Studies. (U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 2001039036 A1 20011108

APPLICATION INFO.: US 2000-742684 A1 20001219 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1995-476123, filed on 7 Jun 1995, GRANTED, Pat. No. US 6162896 Continuation-in-part of Ser. No. US 1994-300584, filed on 2 Sep 1994, GRANTED, Pat. No. US 5885794 Continuation of Ser. No. US 1992-880220, filed on 8 May 1992, ABANDONED Continuation-in-part of Ser. No. US 1991-773229, filed on 9 Oct 1991, ABANDONED Continuation-in-part of Ser. No. US 1991-698709, filed on 10 May 1991, ABANDONED

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: Stephen E. Reiter, Foley & Lardner, 23rd Floor, 402 West Broadway, San Diego, CA, 92101-3542

NUMBER OF CLAIMS: 17

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 6 Drawing Page(s)

LINE COUNT: 1927

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB In accordance with the present invention, there are provided novel receptor proteins characterized by having the following domains, reading from the N-terminal end of said protein:

an extracellular, ligand-binding domain,

a hydrophobic, trans-membrane domain, and

an intracellular, receptor domain having serine kinase-like activity.

The invention receptors optionally further comprise a second hydrophobic domain at the amino terminus thereof. The invention receptor proteins are further characterized by having sufficient binding affinity for at least one member of the activin/TGF-beta superfamily of polypeptide growth factors such that concentrations of .ltoreq.10 nM of said polypeptide growth factor occupy .gtoreq.50% of the binding sites of said receptor protein. A presently preferred member of the invention superfamily of receptors binds specifically to activins, in preference to inhibins, transforming growth factor-beta., and other non-activin-like proteins. DNA sequences encoding such receptors, assays employing same, as well as antibodies derived therefrom, are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 18 OF 34 USPATFULL on STN

ACCESSION NUMBER: 2001:134015 USPATFULL

TITLE: NUCLEIC ACID ENCODING FOLLISTATIN-3

INVENTOR(S): DUAN, D. ROXANNE, BETHESDA, MD, United States  
RUBEN, STEVEN M., OLNEY, MD, United States

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001014464	A1	20010816
	US 6372454	B2	20020416
APPLICATION INFO.:	US 1998-141027	A1	19980827 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-56248P	19970829 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850	
NUMBER OF CLAIMS:	28	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	5 Drawing Page(s)	
LINE COUNT:	4221	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to a novel follistatin-3 protein which is a member of the family of inhibin-related proteins. In particular, isolated nucleic acid molecules are provided encoding the human follistatin-3 protein. Follistatin-3 polypeptides are also provided as are vectors, host cells and recombinant methods for producing the same. The invention further relates to screening methods for identifying agonists and antagonists of follistatin-3 activity. Also provided are diagnostic methods for detecting reproductive system-related disorders and disorders of the regulation of cell growth and differentiation and therapeutic methods for treating reproductive system-related disorders and disorders of the regulation of cell growth and differentiation.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 19 OF 34 USPATFULL on STN

ACCESSION NUMBER: 2001:231357 USPATFULL  
 TITLE: Isolated nucleic acid molecules which encode  
**activin-receptor** like kinases,  
 expression vectors and cells containing these  
 INVENTOR(S): Miyazono, Kohei, Uppsala, Sweden  
 ten Dijke, Peter, Uppsala, Sweden  
 Franzen, Petra, Uppsala, Sweden  
 Yamashita, Hidetoshi, Uppsala, Sweden  
 Heldin, Carl-Henrik, Uppsala, Sweden  
 PATENT ASSIGNEE(S): Ludwig Institute for Cancer Research, New York, NY,  
 United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6331621	B1	20011218
APPLICATION INFO.:	US 2000-679187		20001003 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 436265, now abandoned		

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1992-24057	19921117
	GB 1993-4677	19930308
	GB 1993-4680	19930308
	GB 1993-11047	19930528
	GB 1993-13763	19930702
	GB 1993-9136099	19930803
	GB 1993-21344	19931015
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Mertz, Prema	
ASSISTANT EXAMINER:	Prasad, Sarada C	

LEGAL REPRESENTATIVE: Fulbright & Jaworski, LLP

NUMBER OF CLAIMS: 10

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 14 Drawing Figure(s); 10 Drawing Page(s)

LINE COUNT: 1084

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention involves nucleic acid molecules which encode activin like kinases, expression vectors, and cell lines.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 20 OF 34 USPATFULL on STN

ACCESSION NUMBER: 2001:202406 USPATFULL

TITLE: **Activin receptor-like kinases;**  
proteins having serine threonine kinase domains and polynucleotides encoding same

INVENTOR(S): Miyazono, Kohei, Uppsala, Sweden  
ten Dijke, Peter, Uppsala, Sweden  
Franzen, Petra, Uppsala, Sweden  
Yamashita, Hidetoshi, Uppsala, Sweden  
Heldin, Carl-Henrik, Uppsala, Sweden

PATENT ASSIGNEE(S): Ludwig Institute for Cancer Research, New York, NY,  
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6316217	B1	20011113
	WO 9411502		19940526
APPLICATION INFO.:	US 1995-436265		19951030 (8)
	WO 1993-GB2367		19931117
			19951030 PCT 371 date
			19951030 PCT 102(e) date

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1992-24057	19921117
	GB 1993-4677	19930308
	GB 1993-4680	19930308
	GB 1993-11047	19930528
	GB 1993-13763	19930702
	GB 1993-16099	19930803
	GB 1993-21344	19931015

DOCUMENT TYPE: Utility

FILE SEGMENT: GRANTED

PRIMARY EXAMINER: Kunz, Gary L.

ASSISTANT EXAMINER: Landsman, Robert S.

LEGAL REPRESENTATIVE: Fulbright & Jaworski, LLP

NUMBER OF CLAIMS: 22

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 7 Drawing Figure(s); 10 Drawing Page(s)

LINE COUNT: 1114

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A new receptor family has been identified, of activin-like kinases. Novel proteins have activin/TGF- $\beta$ -type I receptor functionality, and have consequential diagnostic/therapeutic utility. They may have a serine/threonine kinase domain, a DFKSRN or DLKSKN sequence in subdomain VIB and/or a GTKRYM sequence in subdomain VIII.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 21 OF 34 USPATFULL on STN

ACCESSION NUMBER: 2001:126126 USPATFULL

TITLE: Activin like receptor--Isolated kinase proteins ALK-2, ALK-4, ALK-5, and nucleic acid molecules encoding them

INVENTOR(S): Miyazono, Kohei, Uppsala, Sweden  
 ten Dijke, Peter, Uppsala, Sweden  
 Franzen, Petra, Uppsala, Sweden  
 Yamashita, Hidetoshi, Uppsala, Sweden  
 Heldin, Carl-Henrik, Uppsala, Sweden  
 PATENT ASSIGNEE(S): Ludwig Institute For Cancer Research, New York, NY,  
 United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6271365	B1	20010807
APPLICATION INFO.:	US 1999-395115		19990914 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1995-436265, filed on 30 Oct 1995		

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1992-24057	19921117
	GB 1993-904677	19930308
	GB 1993-4680	19930308
	GB 1993-11047	19930528
	GB 1993-13763	19930702
	GB 1993-16099	19930803
	GB 1993-21344	19931015

DOCUMENT TYPE: Utility  
 FILE SEGMENT: GRANTED  
 PRIMARY EXAMINER: Mertz, Prema  
 ASSISTANT EXAMINER: Prasad, Sarada C  
 LEGAL REPRESENTATIVE: Fulbright & Jaworski, LLP  
 NUMBER OF CLAIMS: 26  
 EXEMPLARY CLAIM: 1  
 NUMBER OF DRAWINGS: 14 Drawing Figure(s); 10 Drawing Page(s)  
 LINE COUNT: 1109

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention involves three members of the activin like receptor kinase family, and the nucleic acids encoding these.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 22 OF 34 USPATFULL on STN

ACCESSION NUMBER: 2001:44371 USPATFULL

TITLE: **Activin receptor**-like kinases,  
 ALK-3 and ALK-6, and nucleic acids encoding them

INVENTOR(S): Miyazono, Kohei, Uppsala, Sweden  
 ten Dijke, Peter, Uppsala, Sweden  
 Franzen, Petra, Uppsala, Sweden  
 Yamashita, Hidetoshi, Uppsala, Sweden  
 Heldin, Carl-Henrik, Uppsala, Sweden  
 PATENT ASSIGNEE(S): Ludwig Institute for Cancer Research, New York, NY,  
 United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6207814	B1	20010327
APPLICATION INFO.:	US 1999-382256		19990824 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 436265		

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1992-24057	19921117
	GB 1993-4677	19930308
	GB 1993-4680	19930308
	GB 1993-11047	19930528
	GB 1993-13763	19930702

GB 1993-16099 19930803  
GB 1993-21344 19931015

DOCUMENT TYPE: Utility  
FILE SEGMENT: Granted  
PRIMARY EXAMINER: Fitzgerald, David L.  
LEGAL REPRESENTATIVE: Fulbright & Jaworski, LLP  
NUMBER OF CLAIMS: 5  
EXEMPLARY CLAIM: 1,3  
NUMBER OF DRAWINGS: 14 Drawing Figure(s); 10 Drawing Page(s)  
LINE COUNT: 1073

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to two members of the receptor family referred to as activin-like kinases. These two members are referred to as ALK-3 and ALK-6. The proteins have activin/TGF- $\beta$  type I receptor functionality, and may have a serine/threonine kinase domain, a DFKSRN or DLKSKN sequence in subdomain VIb, and/or a GTKRYM sequence in subdomain VIII.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 23 OF 34 USPATFULL on STN

ACCESSION NUMBER: 2000:171120 USPATFULL  
TITLE: Recombinant vertebrate **activin receptors**

INVENTOR(S): Mathews, Lawrence W., Ann Arbor, MI, United States  
Vale, Jr., Wylie W., La Jolla, CA, United States  
Tsuchida, Kunihiro, San Diego, CA, United States

PATENT ASSIGNEE(S): The Salk Institute for Biological Studies, La Jolla, CA, United States (U.S. corporation)

NUMBER KIND DATE

PATENT INFORMATION: US 6162896 20001219  
APPLICATION INFO.: US 1995-476123 19950607 (8)  
RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1994-300584, filed on 2 Sep 1994, now patented, Pat. No. US 5885794 which is a continuation of Ser. No. US 1992-880220, filed on 8 May 1992, now abandoned which is a continuation-in-part of Ser. No. US 1991-773229, filed on 9 Oct 1991, now abandoned which is a continuation-in-part of Ser. No. US 1991-698709, filed on 10 May 1991, now abandoned

DOCUMENT TYPE: Utility  
FILE SEGMENT: Granted  
PRIMARY EXAMINER: Fitzgerald, David L.  
LEGAL REPRESENTATIVE: Gray Cary Ware & Freidenrich LLP, Reiter, Stephen E.  
NUMBER OF CLAIMS: 11  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 7 Drawing Figure(s); 6 Drawing Page(s)  
LINE COUNT: 1988

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB In accordance with the present invention, there are provided novel receptor proteins characterized by having the following domains, reading from the N-terminal end of said protein:

an extracellular, ligand-binding domain,

a hydrophobic, trans-membrane domain, and

an intracellular, receptor domain having serine kinase-like activity.

The invention receptors optionally further comprise a second hydrophobic domain at the amino terminus thereof. The invention receptor proteins are further characterized by having sufficient binding affinity for at

least one member of the activin/TGF- $\beta$  superfamily of polypeptide growth factors such that concentrations of  $\approx 10$  nM of said polypeptide growth factor occupy  $\approx 50\%$  of the binding sites of said receptor protein. A presently preferred member of the invention superfamily of receptors binds specifically to activins, in preference to inhibins, transforming growth factor- $\beta$ , and other non-activin-like proteins. DNA sequences encoding such receptors, assays employing same, as well as antibodies derived therefrom, are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 24 OF 34 USPATFULL on STN  
 ACCESSION NUMBER: 2000:18280 USPATFULL  
 TITLE: Nucleic acid sequence of senescence associated gene  
 INVENTOR(S): Funk, Walter, Hayward, CA, United States  
 PATENT ASSIGNEE(S): Geron Corporation, Menlo Park, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6025194		20000215
APPLICATION INFO.:	US 1997-974180		19971119 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Huff, Sheela		
ASSISTANT EXAMINER:	Bansal, Geetha P.		
LEGAL REPRESENTATIVE:	Earp, David J., Kaster, Kevin		
NUMBER OF CLAIMS:	10		
EXEMPLARY CLAIM:	1,6		
LINE COUNT:	4667		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Human gene GC6 is expressed more abundantly in senescent cells than young cells. Isolated, purified, and recombinant nucleic acids and proteins corresponding to the human GC6 gene and its mRNA and protein products, as well as peptides and antibodies corresponding to the GC6 protein can be used to identify senescent cells, distinguish between senescent and young cells, identify agents that alter senescent gene expression generally and GC6 expression specifically; such agents as well as GC6 gene and gene products and products corresponding thereto can be used to prevent and treat diseases and conditions relating to cell senescence.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 25 OF 34 USPATFULL on STN  
 ACCESSION NUMBER: 2000:15463 USPATFULL  
 TITLE: Diagnosis of and therapy for hereditary haemorrhagic telangiectasia  
 INVENTOR(S): Letarte, Michelle, Toronto, Canada  
 Marchuk, Douglas A., Chapel Hill, NC, United States  
 McAllister, Kimberly, Durham, NC, United States  
 PATENT ASSIGNEE(S): Duke University, Durham, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6022687		20000208
APPLICATION INFO.:	US 1995-564496		19951129 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1994-346129, filed on 29 Nov 1994		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Horlick, Kenneth R.		

ASSISTANT EXAMINER: Tung, Joyce  
LEGAL REPRESENTATIVE: Fish & Richardson P.C.  
NUMBER OF CLAIMS: 12  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 14 Drawing Figure(s); 16 Drawing Page(s)  
LINE COUNT: 1520

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of diagnosing hereditary haemorrhagic telangiectasia (HHT) which includes the steps of:

obtaining a sample of genomic DNA from a patient or fetus; and

determining whether the DNA contains a mutation in a gene encoding endoglin, betaglycan, TGF-.beta. type I receptor (RI), TGF-.beta. type II receptor (RII), or TGF-.beta./activin type I receptor (TSR-I), such a mutation being an indication that the patient or fetus bears a gene making the patient or fetus susceptible to HHT.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 26 OF 34 USPATFULL on STN

ACCESSION NUMBER: 1999:36917 USPATFULL  
TITLE: Recombinant production of vertebrate **activin receptor** polypeptides and identification of receptor DNAs in the activin/TGF-.beta. superfamily  
INVENTOR(S): Mathews, Lawrence S., San Diego, CA, United States  
Vale, Wylie W., La Jolla, CA, United States  
PATENT ASSIGNEE(S): The Salk Institute for Biological Studies, La Jolla, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5885794		19990323
APPLICATION INFO.:	US 1994-300584		19940902 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1992-880220, filed on 8 May 1992, now abandoned which is a continuation-in-part of Ser. No. US 1991-773229, filed on 9 Oct 1991, now abandoned which is a continuation-in-part of Ser. No. US 1991-698709, filed on 10 May 1991, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Fitzgerald, David L.		
LEGAL REPRESENTATIVE:	Reiter, Stephen E.Gray Cary Ware & Freidenrich LLP		
NUMBER OF CLAIMS:	32		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	7 Drawing Figure(s); 6 Drawing Page(s)		
LINE COUNT:	1641		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB In accordance with the present invention, there are provided novel receptor proteins characterized by having the following domains, reading from the N-terminal end of said protein:

an extracellular, ligand-binding domain,

a hydrophobic, trans-membrane domain, and

an intracellular, receptor domain having serine kinase-like activity.

The invention receptors optionally further comprise a second hydrophobic domain at the amino terminus thereof. The invention receptor proteins are further characterized by having sufficient binding affinity for at least one member of the activin/TGF-.beta. superfamily of polypeptide growth factors such that concentrations of .ltoreq.10 nM of said polypeptide growth factor occupy .gtoreq.50% of the binding sites of

said receptor protein. A presently preferred member of the invention superfamily of receptors binds specifically to activins, in preference to inhibins, transforming growth factor-.beta., and other non-activin-like proteins. DNA sequences encoding such receptors, assays employing same, as well as antibodies derived therefrom, are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 27 OF 34 USPATFULL on STN

ACCESSION NUMBER: 1998:54857 USPATFULL  
TITLE: Pharmaceutical composition and method for inhibiting hair growth by administration of activin or activin agonists  
INVENTOR(S): Mitrani, Eduardo, Newton, MA, United States  
PATENT ASSIGNEE(S): Yissum Research Development Co. of the Hebrew University of Jerusalem, Jerusalem, Israel (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5753612		19980519
APPLICATION INFO.:	US 1995-385185		19950207 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1992-967262, filed on 27 Oct 1992, now patented, Pat. No. US 5387262		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Jagannathan, Vasu		
ASSISTANT EXAMINER:	Saoud, Christine		
LEGAL REPRESENTATIVE:	Foley, Hoag & Eliot LLP, Vincent, Matthew P., Arnold, Beth E.		
NUMBER OF CLAIMS:	15		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page(s)		
LINE COUNT:	1691		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Pharmaceutical preparations for controlling proliferation of ectodermally-derived tissues comprising the specific negative growth factor activin A or an agonist thereof, and their use in methods of treatment of proliferative conditions and wound repair.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 28 OF 34 USPATFULL on STN

ACCESSION NUMBER: 97:123185 USPATFULL  
TITLE: Protection against liver damage by HGF  
INVENTOR(S): Roos, Filip, Brisbane, CA, United States  
Schwall, Ralph, Pacifica, CA, United States  
PATENT ASSIGNEE(S): Genentech, Inc., So. San Francisco, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5703048		19971230
APPLICATION INFO.:	US 1995-452485		19950526 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1994-310361, filed on 21 Sep 1994, now abandoned which is a continuation of Ser. No. US 1992-968711, filed on 30 Oct 1992, now abandoned which is a continuation-in-part of Ser. No. US 1992-946263, filed on 16 Sep 1992, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Feisee, Lila		
ASSISTANT EXAMINER:	Lucas, John		

LEGAL REPRESENTATIVE: Merchant, Gould, Smith, Edell, Welter & Schmidt, P.A.  
NUMBER OF CLAIMS: 15  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 9 Drawing Figure(s); 5 Drawing Page(s)  
LINE COUNT: 2062

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides methods for preventing occurrence or progression of liver damage using hepatocyte growth factor. In the methods, a preventatively effective amount of the hepatocyte growth factor is administered to the patient. The hepatocyte growth factor can be administered, for instance, prior to administering a hepatotoxic therapy to the patient. The hepatocyte growth factor can further be administered with activin or transforming growth factor-beta to prevent liver damage. Compositions comprising hepatocyte growth factor and activin antagonist or transforming growth factor-beta antagonist are also provided by the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 29 OF 34 USPATFULL on STN  
ACCESSION NUMBER: 97:68570 USPATFULL  
TITLE: Protection against liver damage by HGF  
INVENTOR(S): Roos, Filip, Brisbane, CA, United States  
Schwall, Ralph, Pacifica, CA, United States  
PATENT ASSIGNEE(S): Genentech, Inc., So. San Francisco, CA, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5654404		19970805
APPLICATION INFO.:	US 1995-419654		19950410 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1994-310361, filed on 21 Sep 1994 which is a continuation of Ser. No. US 1992-968711, filed on 30 Oct 1992, now abandoned which is a continuation-in-part of Ser. No. US 1992-946263, filed on 16 Sep 1992, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Feisee, Lila		
ASSISTANT EXAMINER:	Lucas, John		
LEGAL REPRESENTATIVE:	Merchant, Gould, Smith, Edell, Welter & Schmidt		
NUMBER OF CLAIMS:	18		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	9 Drawing Figure(s); 5 Drawing Page(s)		
LINE COUNT:	2330		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides methods for preventing occurrence or progression of liver damage using hepatocyte growth factor. In the methods, a preventatively effective amount of the hepatocyte growth factor is administered to the patient. The hepatocyte growth factor can be administered, for instance, prior to administering a hepatotoxic therapy to the patient. The hepatocyte growth factor can further be administered with activin or transforming growth factor-beta to prevent liver damage. Compositions comprising hepatocyte growth factor and activin antagonist or transforming growth factor-beta antagonist are also provided by the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 30 OF 34 USPATFULL on STN  
ACCESSION NUMBER: 96:72864 USPATFULL  
TITLE: Method for predicting and/or preventing preterm labor  
INVENTOR(S): Woodruff, Teresa K., San Bruno, CA, United States  
PATENT ASSIGNEE(S): Genentech, Inc., South San Francisco, CA, United States

(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5545616		19960813
APPLICATION INFO.:	US 1994-310609		19940922 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Reamer, James H.		
ASSISTANT EXAMINER:	MacMillan, Keith		
LEGAL REPRESENTATIVE:	Hasak, Janet E.		
NUMBER OF CLAIMS:	16		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	6 Drawing Figure(s); 6 Drawing Page(s)		
LINE COUNT:	1842		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method is provided for avoiding premature labor in a pregnant mammal comprising administering to said mammal, during labor, but before an infant is to be delivered, an effective amount of an activin antagonist. In one embodiment, the antagonist is follistatin. In another aspect a method is provided for assaying whether a pregnant mammal is in imminent delivery of its fetus in preterm labor comprising contacting a maternal serum sample or amniotic fluid sample of the mammal with a reagent that detects activin A and measuring the level of activin A in the serum or amniotic fluid. In addition, a kit for the assay is provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 31 OF 34 USPATFULL on STN  
ACCESSION NUMBER: 95:11593 USPATFULL  
TITLE: Treatment of hyperproliferative epidermal conditions with activin A  
INVENTOR(S): Mitrani, Eduardo, Jerusalem, Israel  
PATENT ASSIGNEE(S): Yisum Research Development Co., Jerusalem, Israel (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5387576		19950207
APPLICATION INFO.:	US 1992-967262		19921027 (7)

	NUMBER	DATE
PRIORITY INFORMATION:	IL 1991-99867	19911027
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Draper, Garnette D.	
ASSISTANT EXAMINER:	Carlson, K. Cochrane	
LEGAL REPRESENTATIVE:	Hamilton, Brook, Smith & Reynolds	
NUMBER OF CLAIMS:	6	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	6 Drawing Figure(s); 3 Drawing Page(s)	
LINE COUNT:	840	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Pharmaceutical preparations for the treatment of hyperproliferative epidermal conditions comprising the specific negative growth factor activin A, and their use in methods of treatment of hyperproliferative epidermal conditions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 32 OF 34 MEDLINE on STN DUPLICATE 1  
ACCESSION NUMBER: 96164252 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 8596648

TITLE: Induction of beta-A activin expression by synaptic activity and during neocortical development.  
 AUTHOR: Andreasson K; Worley P F  
 CORPORATE SOURCE: Department of Neurology, Johns Hopkins University School of Medicine, Baltimore, MD 21205, USA.  
 CONTRACT NUMBER: EY09374 (NEI)  
 HD00992 (NICHD)  
 SOURCE: Neuroscience, (1995 Dec) 69 (3) 781-96.  
 Journal code: 7605074. ISSN: 0306-4522.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199604  
 ENTRY DATE: Entered STN: 19960424  
 Last Updated on STN: 19960424  
 Entered Medline: 19960418

AB beta-A activin is a member of the transforming growth factor-beta family and has been implicated in nerve cell survival and inhibition of differentiation in vitro [Hashimoto M. et al. (1990) Biochem. biophys. Res. Commun. 173, 193-200; Schubert D. et al. (1990) Nature 344, 868-870]. In our studies to identify genomic mechanisms involved in long-term neuronal responses to synaptic activity, we have determined that beta-A activin messenger RNA is rapidly and transiently induced in neurons of the adult rat brain by excitatory synaptic input. Synaptic mechanisms involved in beta-A activin messenger RNA induction were examined in adult hippocampus and cortex using the long-term potentiation paradigm. beta-A activin messenger RNA is induced in granule cell neurons of the hippocampus by high-frequency synaptic stimuli that produce long-term potentiation, and this induction is blocked by the N-methyl-D-aspartate type glutamate receptor antagonist, dizocilpine. beta-A activin messenger RNA is expressed at basal levels in neurons of layers II/III and V/VI, and this expression rapidly decreases following sensory deafferentation of the visual cortex or systemic administration of dizocilpine, suggesting that beta-A activin expression is regulated by physiological excitatory synaptic activity. In developing brain, beta-A activin is expressed in the neocortex and neostriatum beginning at embryonic day 17. beta-A activin expression in late fetal cortex is enriched in postmitotic neurons at the lower boundary of the dense cortical plate. As development progresses, beta-A activin expression continues to be enriched in neurons at the boundary between the hypercellular cortical plate and the subjacent, more mature deep layers. This inside-out progression of beta-A activin expression follows the well-characterized radial gradient of cortical development. Expression of beta-A activin messenger RNA is rapidly regulated in early postnatal cortex and striatum by GABA and glutamate antagonists, suggesting that beta-A activin is also regulated as a rapid response gene in developing brain, and that the high basal levels reflect a steady-state response to developmental signals. Since **activin receptors** are enriched in neurons of developing and adult brain [Cameron V. A. et al. (1994) Endocrinology 134, 799-808; Roberts V. J. and Barth S. L. (1994) Endocrinology 134, 914-922], our observations suggest a role for activin signaling in neuronal responses to synaptic and developmental activity. In this study, we analyse the induction of expression of beta-A activin, a member of the transforming growth factor-beta family of secreted peptides, in response to synaptic activity and in the developing brain. The elevated and specific expression of beta-A activin during fetal and early postnatal neocortical development and its later regulation by excitatory activity postnatally and in the adult suggests that the activin signaling pathway functions at multiple developmental stages in the neuroplastic response.

L8 ANSWER 33 OF 34 USPATFULL on STN

ACCESSION NUMBER: 94:13452 USPATFULL

TITLE: Detection and purification of activin polypeptide

INVENTOR(S): Cox, Edward T., Foster City, CA, United States  
Mather, Jennie P., Millbrae, CA, United States  
Sliwkowski, Mary B., San Carlos, CA, United States  
Woodruff, Teresa K., Millbrae, CA, United States  
PATENT ASSIGNEE(S): Genentech, Inc., S. San Francisco, CA, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5286654		19940215
APPLICATION INFO.:	US 1993-12711		19930203 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1991-716826, filed on 19 Jun 1991, now patented, Pat. No. US 5216126		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Chan, Y. Christina		
ASSISTANT EXAMINER:	Adams, Arnold E.		
LEGAL REPRESENTATIVE:	Hasak, Janet E.		
NUMBER OF CLAIMS:	3		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	7 Drawing Figure(s); 4 Drawing Page(s)		
LINE COUNT:	2945		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An isolated TGF-.beta. supergene family (TSF) receptor polypeptide is provided. This polypeptide preferably is an inhibin/**activin receptor** polypeptide and has at least 75% sequence identity with the mature human inhibin/**activin receptor** sequence. Also provided is a method for purifying TGF-.beta. supergene family members such as inhibin or activin using the polypeptide, and a method for screening for compounds with TGF-.beta. supergene family member activity by contacting the compound with the polypeptide and detecting if binding has occurred and the compound is active.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L8 ANSWER 34 OF 34 USPATFULL on STN

ACCESSION NUMBER: 93:44360 USPATFULL  
TITLE: Receptor polypeptides and their production and uses  
INVENTOR(S): Cox, Edward T., Foster City, CA, United States  
Mather, Jennie P., Millbrae, CA, United States  
Sliwkowski, Mary B., San Carlos, CA, United States  
Woodruff, Teresa K., Millbrae, CA, United States  
PATENT ASSIGNEE(S): Genentech, Inc., South San Francisco, CA, United States  
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5216126		19930601
APPLICATION INFO.:	US 1991-716826		19910619 (7)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Chan, Y. Christina		
ASSISTANT EXAMINER:	Adams, Donald E.		
LEGAL REPRESENTATIVE:	Hasak, Janet E.		
NUMBER OF CLAIMS:	4		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	7 Drawing Figure(s); 4 Drawing Page(s)		
LINE COUNT:	2843		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An isolated TGF-.beta. supergene family (TSF) receptor polypeptide is provided. This polypeptide preferably is an inhibin/**activin receptor** polypeptide and has at least 75% sequence identity with the mature human inhibin/**activin receptor** sequence. Also provided is a method for purifying TGF-.beta. supergene family

members such as inhibin or activin using the polypeptide, and a method for screening for compounds with TGF- $\beta$  supergene family member activity by contacting the compound with the polypeptide and detecting if binding has occurred and the compound is active.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L Number	Hits	Search Text	DB	Time stamp
1	5	(Mathews.in. or Vale.in. or Tsuchida.in.) and activin adj1 receptor?	USPAT; US-PGPUB; EPO; DERWENT	2004/03/10 16:28
2	59	activin adj1 receptor?	USPAT; US-PGPUB; EPO; DERWENT	2004/03/10 16:50

	U	1	Document ID	Issue Date	Pages	Title	Current OR
1	<input type="checkbox"/>	<input type="checkbox"/>	US 20010039036 A1	20011108	33	Cloning and recombinant production of receptor(s) of the activin/TGF-beta superfamily	435/69.1
2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 20010049360 A1	20011206	22	Betaglycan as an inhibin receptor and uses thereof	514/44
3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5885794 A	19990323	28	Recombinant production of vertebrate activin receptor polypeptides and identification of receptor DNAs in the activin/TGF-.beta. superfamily	435/69.1
4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6162896 A	20001219	33	Recombinant vertebrate activin receptors	530/350
5	<input type="checkbox"/>	<input type="checkbox"/>	US 6692744 B2	20040217	19	Betaglycan as an inhibin receptor and uses thereof	424/158.1

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1	US 20010039036	<input type="checkbox"/>
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3	US 5885794	<input type="checkbox"/>
4	US 6162896	<input type="checkbox"/>
5	US 6692744	<input type="checkbox"/>

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1	<input type="checkbox"/>	<input type="checkbox"/>	EP 1132472 A1	20010912	61	NOVEL PROTEIN AND UTILIZATION THEREOF	
2	<input type="checkbox"/>	<input type="checkbox"/>	EP 771873 A2	19970507	40	Neuronal cell-specific receptor protein	
3	<input type="checkbox"/>	<input type="checkbox"/>	US 20010039036 A1	20011108	33	Cloning and recombinant production of receptor(s) of the activin/TGF-beta superfamily	435/69.1
4	<input type="checkbox"/>	<input type="checkbox"/>	US 20010049360 A1	20011206	22	Betaglycan as an inhibin receptor and uses thereof	514/44
5	<input type="checkbox"/>	<input type="checkbox"/>	US 20020137133 A1	20020926	41	Receptor proteins	435/69.1
6	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 20020157126 A1	20021024	86	Use of follistatin to increase muscle mass	800/18
7	<input type="checkbox"/>	<input type="checkbox"/>	US 20020160478 A1	20021031	88	Short peptides which selectively modulate the activity of protein kinases	435/184
8	<input type="checkbox"/>	<input type="checkbox"/>	US 20020164647 A1	20021107	19	Protein-protein interactions	435/7.1
9	<input type="checkbox"/>	<input type="checkbox"/>	US 20030060398 A1	20030327	23	Neuronal rescue agent	514/2
10	<input type="checkbox"/>	<input type="checkbox"/>	US 20030082233 A1	20030501	22	Method and composition for modulating bone growth	424/484
11	<input type="checkbox"/>	<input type="checkbox"/>	US 20030096296 A1	20030522	87	Use of a BMP protein receptor complex for screening bone metabolism actives and cells co-transfected with a type II BMP receptor and a type I BMP receptor	435/7.1
12	<input type="checkbox"/>	<input type="checkbox"/>	US 20030103950 A1	20030605	13	Cell	424/93.21
13	<input type="checkbox"/>	<input type="checkbox"/>	US 20030103959 A1	20030605	15	Methods of providing neuroprotection and/or neurorestoration via the neural activin type IIB receptor	424/94.63
14	<input type="checkbox"/>	<input type="checkbox"/>	US 20030119072 A1	20030626	37	Methods for modulating signal transduction mediated by TGF-beta related proteins	435/7.2

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15	<input type="checkbox"/>	<input type="checkbox"/>	US 20030139366 A1	20030724	40	Inhibition of Smad3 to prevent fibrosis and improve wound healing	514/44
16	<input type="checkbox"/>	<input type="checkbox"/>	US 20030144203 A1	20030731	29	Methods for slowing senescence and treating and preventing diseases associated with senescence	514/12
17	<input type="checkbox"/>	<input type="checkbox"/>	US 20030166020 A1	20030904	33	Receptor polypeptides and their production and uses	435/7.21
18	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 20030170742 A1	20030911	128	Polynucleotides and polypeptides associated with the development of rheumatoid arthritis	435/7.2
19	<input type="checkbox"/>	<input type="checkbox"/>	US 20030207263 A1	20031106	28	Method of screening therapeutic agents	435/6
20	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 20030211589 A1	20031113	32	Short peptides from the b4 and b5 regions kinases which selectively modulate protein activity	435/194
21	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 20030219846 A1	20031127	8	Assay for activity of the ActRIIB kinase	435/15
22	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5216126 A	19930601	32	Receptor polypeptides and their production and uses	530/350
23	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5286654 A	19940215	33	Detection and purification of activin polypeptide	436/501
24	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5453492 A	19950926	16	60 kDa transforming growth factor-.beta.-binding protein and its use to detect or purify TGF-.beta.	530/413
25	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5545616 A	19960813	23	Method for predicting and/or preventing preterm labor	514/8
26	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5654404 A	19970805	29	Protection against liver damage by HGF	530/387.3

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26	US 5654404	<input type="checkbox"/>

	U	1	Document ID	Issue Date	Pages	Title	Current OR
27	<input type="checkbox"/>	<input type="checkbox"/>	US 5658876 A	19970819	18	Activin antagonists as novel contraceptives	514/2
28	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5703048 A	19971230	26	Protection against liver damage by HGF	514/12
29	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5766863 A	19980616	111	Kinase receptor activation assay	435/7.21
30	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5807713 A	19980915	30	DNA encoding growth/differentiation factor	435/69.5
31	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5824637 A	19981020	18	Activin antagonists as novel contraceptives	514/2
32	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5831050 A	19981103	31	Morphogen cell surface receptor	536/23.5
33	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5861479 A	19990119	31	Morphogen cell surface receptor	530/324

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29	US 5766863	<input type="checkbox"/>
30	US 5807713	<input type="checkbox"/>
31	US 5824637	<input type="checkbox"/>
32	US 5831050	<input type="checkbox"/>
33	US 5861479	<input type="checkbox"/>

	U	1	Document ID	Issue Date	Pages	Title	Current OR
34	<input type="checkbox"/>	<input type="checkbox"/>	US 5885794 A	19990323	28	Recombinant production of vertebrate activin receptor polypeptides and identification of receptor DNAs in the activin/TGF-.beta. superfamily	435/69.1
35	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5891650 A	19990406	112	Kinase receptor activation assay	435/7.21
36	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5914237 A	19990622	111	Kinase receptor activation assay	435/7.21
37	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 5981483 A	19991109	42	Compositions comprising modulators of cytokines of the TGF-.beta. superfamily	514/12
38	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6004937 A	19991221	6	Use of follistatin to modulate growth and differentiation factor 8 [GDF-8] and bone morphogenic protein 11 [BMP-11]	514/21
39	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6093547 A	20000725	31	Morphogen cell surface receptor and screening for morphogen analogs	435/7.1

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37	US 5981483	<input type="checkbox"/>
38	US 6004937	<input type="checkbox"/>
39	US 6093547	<input type="checkbox"/>

	U	1	Document ID	Issue Date	Pages	Title	Current OR
40	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6132988 A	20001017	47	DNA encoding a neuronal cell-specific receptor protein	435/69.1
41	<input type="checkbox"/>	<input type="checkbox"/>	US 6162896 A	20001219	33	Recombinant vertebrate activin receptors	530/350
42	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6171584 B1	20010109	43	Method of treatment with growth/differentiation factors of the TGF-.beta. family	424/85.1
43	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6210899 B1	20010403	85	Use of a BMP protein receptor complex for screening bone metabolism actives and cells co-transfected with a type II BMP receptor and type I BMP receptor	435/7.1
44	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6287784 B1	20010911	119	Kinase receptor activation assay	435/7.1
45	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6291206 B1	20010918	38	BMP receptor proteins	435/69.1
46	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6294335 B1	20010925	12	Method of diagnosing abnormal cell growth	435/6

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40	US 6132988	<input type="checkbox"/>
41	US 6162896	<input type="checkbox"/>
42	US 6171584	<input type="checkbox"/>
43	US 6210899	<input type="checkbox"/>
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45	US 6291206	<input type="checkbox"/>
46	US 6294335	<input type="checkbox"/>

	U	1	Document ID	Issue Date	Pages	Title	Current OR
47	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6306622 B1	20011023	61	cdNA encoding a BMP type II receptor	435/69.1
48	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6407060 B1	20020618	41	Method for enhancing functional recovery following central nervous system ischemia or trauma	514/12
49	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6455262 B1	20020924	31	Receptor polypeptides and their production and uses	435/7.1
50	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6610513 B2	20030826	37	Receptor proteins	435/69.1
51	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6642362 B1	20031104	82	Genes coding proteins for early liver development and their use in diagnosing and treating liver disease	530/388.23
52	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6656475 B1	20031202	77	Growth differentiation factor receptors, agonists and antagonists thereof, and methods of using same	424/198.1
53	<input type="checkbox"/>	<input type="checkbox"/>	US 6686198 B	20040203	22	Inducing and maintaining neuronal stem cells by preventing or antagonizing a signal pathway in a cell for a growth factor of the TGF-beta family, useful for treating Alzheimer's disease, Parkinson's disease and multiple sclerosis	
54	<input checked="" type="checkbox"/>	<input type="checkbox"/>	US 6686198 B1	20040203	22	Method of inducing and maintaining neuronal cells	435/377
55	<input type="checkbox"/>	<input type="checkbox"/>	US 6692744 B2	20040217	19	Betaglycan as an inhibin receptor and uses thereof	424/158.1

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47	US 6306622	<input type="checkbox"/>
48	US 6407060	<input type="checkbox"/>
49	US 6455262	<input type="checkbox"/>
50	US 6610513	<input type="checkbox"/>
51	US 6642362	<input type="checkbox"/>
52	US 6656475	<input type="checkbox"/>
53	US 6686198	<input type="checkbox"/>
54	US 6686198	<input type="checkbox"/>
55	US 6692744	<input type="checkbox"/>

	U	1	Document ID	Issue Date	Pages	Title	Current OR
56	<input checked="" type="checkbox"/>	<input type="checkbox"/>	WO 200131004 A	20030520	83	New brain protein with affinity to activin receptors for treatment and prevention of brain and nerve disorders, such as Alzheimer's disease, Parkinson's disease and Huntington's disease	
57	<input type="checkbox"/>	<input type="checkbox"/>	WO 2003006057 A	20030123	NA	Treatment and/or prophylaxis of a disease associated with fibrosis such as ulcerative colitis, Crohn's Disease, liver fibrosis or cirrhosis, in a vertebrate, comprises using an activin antagonist	
58	<input type="checkbox"/>	<input type="checkbox"/>	WO 9507982 A1	19950323	83	ACTIVIN RECEPTORS-LIKE KINASE (ALK), BELONGING TO THE TGF RECEPTOR FAMILY AND/OR TO THE BMP RECEPTOR FAMILY	
59	<input type="checkbox"/>	<input type="checkbox"/>	WO 9611259 A1	19960418	58	TGF- beta 1, ACTIVIN RECEPTORS 1 AND 3	

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56	WO 200131004 A1	<input type="checkbox"/>
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